

REMARKS

Claims 1-3, 7-12, and 70 were examined and are pending. Claims 1, 7-12, and 70 are rejected. Claims 2 and 3 are objected to. In response, Applicants has amended Claim 70. .

At the outset, the Examiner is respectfully requested to review the circumstances of the Interview Summary that was attached to the outstanding Office Action, as Applicants' representative has not engaged in a personal interview at the Patent Office with respect to the present application.

The Examiner is thanked for the courtesy of a telephone conference on November 12, 2002. Applicants respectfully acknowledges withdrawal of the finality of the Office Action of Paper No. 12, and withdrawal of all rejections and objections set forth therein. Favorable reconsideration and allowance of the application is respectfully requested.

Rejection Under 35 U.S.C. § 112, first paragraph

Claims 1, 7-12, and 70 are rejected under 35 U.S.C. § 112, first paragraph as containing subject for which there is insufficient written description. It is asserted that the specification does not sufficiently represent all of the variants that are claimed.

Applicants respectfully disagree. The specification discloses far more than a wth3 coding sequence. The specification describes a variety of attributes, including structural properties and biological activities that are characteristic of WTH3 nucleic acids encompassed by Claim 1 and the encoded proteins.

First, structural information concerning the identity of the gene is disclosed, for example, at page 28, lines 15-16. The map position for WTH3 is 2q31 on the long arm of chromosome 2, adjacent to a Sequence Tagged Site (STS) identified as CHLC.GATA27A12. Second, the specification discloses the size of the mRNA transcript to be about 3 kb in length. (See, e.g., Specification, page 29, lines 18-19). Third, the length of the coding sequence, the size

of the encoded protein, and its homology to a family of proteins of known function (guanosine triphosphatases) are disclosed. (See, e.g., Specification, page 10, lines 4-7; page 27, lines 21-26). Fourth, it is disclosed that the level of WTH3 mRNA is significantly reduced in cells that are multiple drug resistance. The level of expression in MCF/AdrR cells was found to be about ten times less than in MCF7 cells. (See, e.g., Specification, page 29, lines 19-21). Fifth, WTH3 is differentially methylated. In Southern blots, a WTH3 probe detected a band in genomic DNA of MCF7 cells cleaved with a methylation sensitive restriction enzyme. The band is absent in similarly digested genomic DNA from MCF7/AdrR cells. When a methylation insensitive restriction enzyme was used, the same restriction fragment was detected in both genomic digests. (See, e.g., Specification, page 27, lines 4-14). Sixth, transfection and expression of WTH3 in MCF7/AdrR multiple drug resistant cells results in increased sensitivity to doxorubicin and vincristine. (See, e.g., Specification, page 31, lines 8-15).

Accordingly, it is respectfully asserted that there is no reasonable basis for concluding that Applicants were not in possession of the claimed subject matter. In view of the described methods, the disclosed functional and structural characteristics of the protein and nucleic acids, as well as the homology to a family of guanosine triphosphatases and distinction therefrom on the basis of, for example, genetic mapping data, it would be apparent to one of ordinary skill in the art that the Applicants were in possession of the broadly claimed invention. Accordingly, Applicants request that the rejection of the claims for insufficient written description be withdrawn.

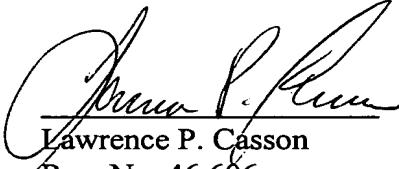
Conclusion

In view of the foregoing amendment and remarks, it is believed that the present application is in a condition for allowance, which action is earnestly solicited. The Examiner is requested to contact the undersigned to reconcile outstanding issues that might remain.

Respectfully Submitted,

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